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10/774,146	02/06/2004	Kerry D. Steele	E-1672 (BA4-215)	8437
21567 7590 07/05/2007 WELLS ST. JOHN P.S. 601 W. FIRST AVENUE, SUITE 1300 SPOKANE, WA 99201			EXAMINER AJIBADE AKONAI, OLUMIDE	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/774,146	Applicant(s) STEELE ET AL.	
	Examiner Olumide T. Ajibade-Akonai	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17 is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-16, 18-21, 23, 24 and 27-40 is/are rejected.
- 7) ☒ Claim(s) 4-7, 22, 25 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 12-18, filed 28 February 2007, with respect to the rejection(s) of claim(s) 1-5, 8-16, 18-24 and 27-40 under 35 U.S.C § 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of **Regan 6,876,294**.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

3. Claims 1-3, 8, 9, 11-16, 18-21, 23, 24 and 28-40 are rejected under 35 U.S.C. 102(e) as being anticipated by **Regan 6,876,294**.

Regarding **claim 1**, Regan discloses a communications device identification method comprising: providing identification information (value held by a transponder in a first or second field, see col. 3, lines 41-50, 55) regarding a group of wireless identification devices (transponders 4, see fig. 1, col. 3, lines 30-32) within a wireless communications range of a reader (interrogation device/reader 2, see fig. 1, col. 3, lines 30-32); using the provided identification information, selecting one of a plurality of different search procedures for identifying unidentified ones of the wireless identification devices within the wireless communications range (based on the values received from the transponders 4, the reader 4 searches for other transponders by transmitting the numbers in a TREE message in order to receive a response to any unidentified

transponders; or if the responses transmitted to the reader 4 are less than the time slots, an IDRQ message is transmitted in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14); and identifying at least some of the unidentified ones of the wireless identification devices using the selected one of the search procedures (transmitting a TREE message in order to receive a response to any unidentified transponders; or transmitting an IDRQ message in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 2**, as applied to claim 1, Regan further discloses wherein the providing the identification information comprises determining a range of identifiers of the wireless identification devices which may be within the wireless communications range (see col. 5, lines 26-33).

Regarding **claim 3**, as applied to claim 2, Regan further discloses wherein providing the identification information comprises determining a number of wireless identification devices which may be within the wireless communications range (see col. 5, lines 19-25).

Regarding **claim 8**, as applied to claim 1, Regan further discloses an article of manufacture embodying executable instructions configured to cause processing circuitry to perform the method of selecting and identifying (interrogation device/reader 2 with processing 6 that transmits a TREE or IDRQ message, see fig. 1, col. 3, lines 30-32).

Regarding **claim 9**, as applied to claim 1, Regan discloses further comprising communicating data intermediate identified ones of the wireless identification devices and the reader (receiving a value held by a transponder in a first or second field, see col. 3, lines 41-50, 55).

Regarding **claim 11**, as applied to claim 1, Regan further discloses wherein the reader and the wireless identification devices are configured to implement radio frequency identification device (RFID) communications (see col. 3, lines 40-45).

Regarding **claim 12**, Regan discloses a communications device identification method comprising: providing a reader (interrogation device/reader 2, see fig. 1, col. 3, lines 30-32) configured to communicate with a plurality of wireless identification devices (transponders 4, see fig. 1, col. 3, lines 30-32); identifying a first of the wireless identification devices within a wireless communications range of the reader (receiving a value held by a transponder in a first or second field, see col. 3, lines 41-50, 55); identifying a second of the wireless identification devices within the wireless communications range of the reader (receiving a value held by a transponder in a first or second field, see col. 3, lines 41-50, 55); selecting one of a plurality of different search procedures responsive to the identifyings (based on the values received from the transponders 4, the reader 4 searches for other transponders by transmitting the numbers in a TREE message in order to receive a response to any unidentified transponders; or if the number of responses transmitted to the reader 4 are less than the time slots, an IDRQ message is transmitted in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14); and

identifying at least one unidentified wireless identification device within the wireless communications range using the selected one of the search procedures (transmitting a TREE message in order to receive a response to any unidentified transponders; or transmitting an IDRQ message in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 13**, as applied to claim 12, Regan further discloses wherein the first and second of the wireless identification devices comprise wireless identification devices having respective ones of a minimum and a maximum identifier (identity codes, see col. 4, lines 65-67 through col. 5, lines 1-13).

Regarding **claim 14**, as applied to claim 12, Regan discloses further comprising communicating with at least one of the identified wireless identification devices using the reader after the identifying (see col. 3, lines 30-39, col. 4, lines 18-25).

Regarding **claim 15**, as applied to claim 12, Regan further discloses wherein one of the search procedures comprises a binary search procedure, and another of the search procedures comprises a walk-through procedure (transmitting a TREE message in order to receive a response to any unidentified transponders; or transmitting an IDRQ message in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 16**, as applied to claim 12, Regan further discloses an article of manufacture embodying executable instructions configured to cause processing circuitry to perform the method of the identifying and the selecting (interrogation

device/reader 2 with processing 6 that transmits a TREE or IDRQ message, see fig. 1, col. 3, lines 30-32).

Regarding **claim 18**, Regan discloses a communications method comprising providing a first group of wireless identification devices (transponders 4, see fig. 1, col. 3, lines 30-32) within a wireless communications range of a reader (interrogation device/reader 2, see fig. 1, col. 3, lines 30-32) at a first moment in time (receiving a value held by a transponder in a first or second field in time slots, see col. 3, lines 41-50, 55); providing first identification regarding the first group (receiving a value held by a transponder in a first or second field, see col. 3, lines 41-50, 55); first selecting one of a plurality of different search procedures for identifying the wireless identification devices of the first group, wherein the first selecting comprises selecting using the first identification information (using the values transmitted from the transponders 4 to transmit a TREE message from the reader 4 to any unidentified transponders within range, see figs. 1 and 2, col. 3, lines 41-56); identifying unidentified ones of the wireless identification devices of the first group using the selected one of the search procedures (unidentified transponders 4 respond with a response signal, see fig. 3, col. 3, lines 51-56); providing a second group of wireless identification devices within the wireless communications range of the reader at a second moment in time (transponders 4, see fig. 1, col. 3, lines 30-32); providing second identification information regarding the second group (receiving a value held by a transponder in a first or second field in time slots, see col. 3, lines 41-50, 55); second selecting an other of the different search procedures using the second identification information; and identifying unidentified ones

of the wireless identification devices of the second group (corresponds to the transponders *r* that are identified by the IDRQ message, see col. 3, lines 57-67, col. 4, lines 1-14) using the selected other of the search procedures (when the responses transmitted to the reader 4 are less than the time slots, an IDRQ message is transmitted in order to receive a response from any unidentified transponders, therefore indicating that the second group is searched by transmitting an IDRQ message, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 19**, as applied to claim 18, Regan further comprising communicating data intermediate the reader and identified ones of the wireless identification devices of the first and second groups (receiving a value held by a transponder in a first or second field, see col. 3, lines 41-50, 55).

Regarding **claim 20**, Regan discloses a wireless communications reader (interrogation device/reader 2, see fig. 1, col. 3, lines 30-32) comprising: an antenna configured to communicate wireless signals within a wireless communications range (aerial 12, see fig. 1, col. 3, lines 36-40); and processing circuitry coupled with the antenna (processor 6, see fig. 1, col. 3, lines 36-40) and configured to implement wireless communications with a plurality of wireless identification devices (transponders 4, see fig. 1, col. 3, lines 30-32) within the wireless communications range via the antenna (reader 2 transmitting and receiving signals from transponders 4, see fig. 1, col. 3, lines 30-40), to analyze a number of wireless identification devices which may be present within the wireless communications range with respect to a range of identifiers of wireless identification devices which may be present within the communications

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range, to select one of a plurality of search procedures responsive to the analysis (based on the values received from the transponders 4, the reader 4 searches for other transponders by transmitting the numbers in a TREE message in order to receive a response to any unidentified transponders; or if the responses transmitted to the reader 4 are less than the time slots, an IDRQ message is transmitted in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14), and to identify at least one of the wireless identification devices within the wireless communications range using the selected search procedure (transmitting a TREE message in order to receive a response to any unidentified transponders; or transmitting an IDRQ message in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 21**, as applied to claim 20, Regan further discloses is configured to estimate the number of the wireless identification devices (see col. 5, lines 19-25).

Regarding **claim 23**, as applied to claim 20, Regan further discloses wherein the processing circuitry is configured to estimate the range of identifiers of the wireless identification devices (see col. 5, lines 26-33).

Regarding **claim 24**, as applied to claim 23, Regan further discloses wherein the processing circuitry is configured to estimate the range corresponding to minimum and maximum possible values associated with the processing circuitry (identity codes, see col. 4, lines 65-67 through col. 5, lines 1-13, 26-33).

Regarding **claim 28**, as applied to claim 20, Regan further discloses wherein the processing circuitry is configured to implement radio frequency identification device (RFID) communications using the antenna (see col. 3, lines 40-45).

Regarding **claim 29**, Regan discloses a wireless communications system comprising: a wireless communications reader (interrogation device/reader 2, see fig. 1, col. 3, lines 30-32) configured to implement wireless communications within a wireless communications range (see col. 3, lines 36-40); a first group of wireless identification devices located within the wireless communications range at a first moment in time (receiving a value held by a transponder in a first or second field, see col. 3, lines 41-50, 55); a second group of wireless identification devices located within the wireless communications range at a second moment in time (receiving a value held by a transponder in a first or second field, see col. 3, lines 41-50, 55); wherein the wireless communications reader is configured to obtain the identity of at least one of the wireless identification devices of the first group using a first search procedure and to obtain the identity of at least one of the wireless identification devices of the second group using a second" search procedure different than the first search procedure (based on the values received from the transponders 4, the reader 4 searches for other transponders by transmitting the numbers in a TREE message in order to receive a response to any unidentified transponders; or if the number of responses transmitted to the reader 4 are less than the time slots, an IDRQ message is transmitted in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14); and wherein the wireless communications reader is configured to select the first and the

second search procedures responsive to an analysis of group identification information of respective ones of the first group and the second group (transmitting a TREE message in order to receive a response to any unidentified transponders; or transmitting an IDRQ message in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 30**, as applied to claim 29, Regan further discloses wherein the wireless communications reader and identified ones of the wireless identification devices are configured to exchange wireless communication (see col. 3, lines 40-45).

Regarding **claim 31**, as applied to claim 29, Regan further discloses wherein the first search procedure comprises a binary search procedure and the second search procedure comprises a walk-through search procedure (transmitting a TREE message in order to receive a response to any unidentified transponders; or transmitting an IDRQ message in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 32**, Regan discloses an article of manufacture (interrogation device/reader 2 with processor 6, see fig. 1, col. 3, lines 30-32) comprising:
a medium comprising executable instructions configured to cause processing circuitry of a wireless communications reader to: access information regarding a plurality of wireless identification devices which may be within a communications range of the wireless communications reader (receiving a value held by a transponder in a first or second field, see col. 3, lines 41-50, 55); select one of a plurality of different search procedures using the accessed information, wherein the different search procedures

comprise procedures for identifying unidentified ones of the wireless identification devices (based on the values received from the transponders 4, the reader 4 searches for other transponders by transmitting the numbers in a TREE message in order to receive a response to any unidentified transponders; or if the number of responses transmitted to the reader 4 are less than the time slots, an IDRQ message is transmitted in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14); and identify unidentified ones of the wireless identification devices using the selected one of the search procedures (transmitting a TREE message in order to receive a response to any unidentified transponders; or transmitting an IDRQ message in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 33**, as applied to claim 32, Regan further discloses wherein the executable instructions are configured to cause the processing circuitry to access the information comprising a range of identifiers of the wireless identification devices and a number of the wireless identification devices (see col. 4, lines 65-67 through col. 5, lines 1-13).

Regarding **claim 34**, as applied to claim 32, Regan further discloses, wherein the executable instructions are configured to cause the processing circuitry to implement wireless communications with at least one of the identified wireless identification devices (see col. 3, lines 40-45).

Regarding **claim 35**, as applied to claim 1, Regan further discloses wherein the plurality of different search procedures individually comprise a search procedure for

identifying the at least some of the unidentified ones of the wireless identification devices within an entirety of the same wireless communications range of the reader (based on the values received from the transponders 4, the reader 4 searches for other transponders by transmitting the numbers in a TREE message in order to receive a response to any unidentified transponders; or if the number of responses transmitted to the reader 4 are less than the time slots, an IDRQ message is transmitted in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 36**, as applied to claim 1, Regan further discloses, wherein the plurality of different search procedures individually comprise different steps which are performed to identify the at least some of the unidentified ones of the wireless identification devices (transmitting a TREE message in order to receive a response to any unidentified transponders; or transmitting an IDRQ message in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 37**, as applied to claim 12, Regan further discloses, wherein the plurality of different search procedures individually comprise a search procedure for identifying the at least one unidentified wireless identification device within an entirety of the same wireless communications range of the reader (based on the values received from the transponders 4, the reader 4 searches for other transponders by transmitting the numbers in a TREE message in order to receive a response to any unidentified transponders; or if the number of responses transmitted to the reader 4 are less than

the time slots, an IDRQ message is transmitted in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 38**, as applied to claim 12, Regan further discloses, wherein the plurality of different search procedures individually comprise different steps which are performed to identify the at least one unidentified wireless identification device (transmitting a TREE message in order to receive a response to any unidentified transponders; or transmitting an IDRQ message in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 39**, as applied to claim 20, Regan further discloses, wherein the plurality of search procedures individually comprise a search procedure usable to identify the at least one wireless identification device within an entirety of the same wireless communications range (based on the values received from the transponders 4, the reader 4 searches for other transponders by transmitting the numbers in a TREE message in order to receive a response to any unidentified transponders; or if the number of responses transmitted to the reader 4 are less than the time slots, an IDRQ message is transmitted in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Regarding **claim 40**, as applied to claim 20, Regan further discloses, wherein the plurality of search procedures individually comprise different steps which are performed to identify the at least one wireless identification device (transmitting a TREE message in order to receive a response to any unidentified transponders; or transmitting an IDRQ

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message in order to receive a response from any unidentified transponders, see fig. 2, col. 3, lines 51-67, col. 4, lines 1-14).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Regan 6,876,294** in view of Hohberger et al 6,958,678 (hereinafter Hohberger).

Regarding claims **10 and 27**, as applied to claims 1, 9 and 20, Regan discloses the claimed invention except wherein the processing circuitry is configured to process backscatter modulation communications received from at least one of the wireless identification devices.

In the same field of endeavor, Hohberger discloses wherein the processing circuitry (reader 11 with controller 22, see fig. 1, col. 6, lines 55-59) is configured to process backscatter modulation communications received from at least one of the wireless identification devices (transponders 12.1 to 12.n respond to an interrogation signal from reader 12 by backscatter modulation, see col. 6, lines 55-64).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Hohberger, by having a transponder(s) respond to an interrogation signal from a reader with backscatter

modulation, into the system of Regan for the benefit of transmitting data message containing identification code characteristics of the transponder.

Allowable Subject Matter

6. Claims 4-7, 22, 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 17 is allowed.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Voegele 6,725,014 discloses a method and system for contention resolution in radio frequency identification systems.

Yizhack 20050035849 discloses a method for inventory count of articles with RFID tags.

Tanaka et al 20060017544 discloses a method for multi-reading a plurality of ID's.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olumide T. Ajibade-Akonai whose telephone number is 571-272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on 571-272-7915. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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